What was the original condition of the limb? There was evidently a local inability to produce a new bone, and we may presume that in the primary inflammation the periosteum, or at least the deeper active portion of it around the sequestrum, had been destroyed, and the lymph poured out from the surrounding tissues lacked any "ossific stimulus." This the bone-grafts supplied. But how are we to explain the formation of new bone of the proper length and form? We cannot, of course, attribute this power to the transplanted tissue; it might have seemed probable if Dr. MacEwen had used pieces of the opposite humerus, or even any humerus, for his purpose; but we find that pieces of tibia were successful. If not the transplanted bone, are we to say that the ends of the original bone exerted a moulding influence on the ossifying material, or was it the effect of the surrounding tissues? A question naturally arises whether transplantation of bone is essentially better than transplantation of periosteum alone. It is easy to see that when whole pieces of bone are used, the periosteum over them will be probably more active than when stripped off and used alone, as in stripping off it is liable to injury. It would also be exceedingly interesting to know what actually became of the transplanted bone. Did the medullary cells and soft parts live, and the fragments become actually incorporated with the new bone; or was lymph effused around and into the bone, which was then gradually softened down and absorbed, or cast away in secretion? The problem is the same as has been raised about organizing blood-clot. A case published in our columns in 1878 by Dr. MacEwen may be taken as throwing some light on the question; there, in a case of compound fracture of the leg, a fragment two inches and a half long was completely detached, except by a very few slender bridges of periosteum, but being replaced and carefully treated, it was seen after four weeks to become injected with blood, and granulations rose from its surface. Here the whole process was closely watched from day to day, and the large fragment was seen to become firmly incorporated again with the rest of the bone. Other cases, individually perhaps less conclusive, point to the same conclusion; we may refer to one contributed to our columns in 1877 by Mr. Porteous. As so frequently happens in such cases, while Dr. MacEwen has been carrying the case to a successful issue in Glasgow, a similar proceeding had been determined upon by Mr. C. Macnamara of the Westminster Hospital. On Wednesday last we saw him plant several small fragments of bone taken from an amputated metatarsus in a groove prepared in the leg of a little child from whom several months ago he had removed the greater part of the shaft of the tibia. This operation was determined upon and discussed before the class of students more than a month ago, before Dr. MacEwen's case was made public, but it was postponed until the patient had had a few weeks' change of air in the country. Mr. Macnamara remarked, in reference to it, that he had been greatly struck with what he had seen in the practice of Mr. Thompson, who has removed teeth and replaced them several hours later, and they have adhered firmly in a few days; this, with other facts, had encouraged him in his endeavour to make a new bone in the case in point.—*Lancet*, May 28, 1881.

OPHTHALMOLOGY AND OTOLOGY.

New Method of Blepharoplasty.

Dr. **LANDOLT** (*Archives d'Ophthalmologie*, Dec. 1880) describes a new operation of blepharoplasty, from which he has obtained good results. For this operation, the eyelids may be considered as formed of two layers superposed, the external consisting of skin and orbicularis, with the eyelashes, the internal of submuscular connective tissue, venous plexuses, tarsal cartilage, and conjunctiva. When these layers are separated in the plane of the forehead, two raw surfaces of considerable extent are obtained, between which a flap, freshened, and from the opposing lid, can be inserted. The upper lid is extremely elastic, and can be drawn down and fixed to the edge of the lower by points of suture. The eye is thus hermetically sealed up, but, after a sufficient time has elapsed, the lid can be cut across, and the palpebral aperture restored. It remains then merely to cover the abraded edges with conjunctiva. Dr. Landolt adds that the operation is indicated chiefly in cases of loss of one lid when its fellow is intact or but little damaged, and in cases in which the two lids are each partially destroyed.—*London Medical Record*, April 15, 1881.

Colour-Blindness.

A valuable contribution to our knowledge of colour-blindness has been made by Dr. de FONTENAY, of Copenhagen, who has published the result of his researches in the *Nordiskt Medicinskt Arkiv* for 1880. He follows the classification proposed by Holmgren: 1. Total colour-blindness; 2. Partial colour-blindness; (*a*) complete blindness of red, green, or violet; (*b*) incomplete colour-blindness; (*c*) feeble sense of colour. The last is not Daltonism, properly so called, and is omitted in the statistics. The examinations were made by means of Holmgren's coloured wools; and in some of the cases, in which colour-blindness was detected, the results were controlled by various additional tests.

The total number of persons examined by Dr. de Fontenay was 9659, of all ages from eight years upwards; 6945 being above the age of sixteen, and 2714 below that age. Of the whole number, 217, or 2.25 per cent., were colour-blind. Of 4492 adult males, 165, or 3.7 per cent., had colour-blindness. Among these, 1001 belonged to the upper classes, and showed a percentage of 3.09; while in 3491 artisans, labourers, etc., the percentage was 3.87. The percentages of colour-blindness varied greatly with the employment of the individual: thus of 2737 railway officials, 3 per cent. were colour-blind; of 183 post-office officials, 9.28 per cent.; of 930 artisans of various kinds, 3.22 per cent. It is not certain how far these proportions are accidental, or how far the greater prevalence of colour-blindness in the lower orders may be due to defective cultivation of the sense of colour, or to heredity. In any case, Dr. de Fontenay's observations agree with those of Holmgren, Magnus, and others. In order to render his results as exact as possible, Dr. de Fontenay did not confine his researches to a single part of Denmark, but extended them over the whole country.

Of 6,945 adults above the age of sixteen (4492 males and 2453 females), 176, or 2.56 per cent., were colour-blind. Among the females, there were only 11 cases of colour-blindness, or 0.45 per cent. Adding to these the female children who were examined, a total is obtained of 3819, among whom there were 16 colour-blind individuals, or 0.42 per cent.; while, in a total of 5840 male (adults and children), the number of cases of Daltonism was 201, or 3.44 per cent. All the sixteen colour-blind females belonged to the working classes. Among the 2714 children, aged from eight to sixteen, 41, or 1.51 per cent., were colour-blind—viz., 1348 boys, with 36 cases of Daltonism, or 2.67 per cent.; and 1366 girls, with 5 colour-blind, or 0.37 per cent.

Two cases of violet-blindness, which were incompletely examined, being excluded, there were found to be 56 cases of red-blindness, 24 of green-blindness, and 135 of incomplete colour-blindness. In all the cases, both eyes were examined separately, and found to be affected. As regards the relation between the colour of the eyes and colour-blindness, Dr. de Fontenay does not find any special predominance of colour-blindness in dark or in fair individuals.